

7 Behind the Scenery

Profiles in conservation assistance



“We have to help each other or we would never make it through. Everything is a team effort.”

—Bruce Sefton, Facility Manager,
Yellowstone National Park

It is tempting to think of national parks as self-sustaining islands of our rugged, natural heritage. But the care and protection of the natural and cultural resources entrusted to the National Park Service require the talents of a wide range of professional staff and volunteers. You may envision a federal or university researcher or an NPS biologist working directly with park natural resources to learn about, restore, and manage them on a daily basis. However, the following articles celebrate a different group: a committed cadre of NPS staff and partners who work “behind the scenery,” providing, in many cases, indirect support of the NPS science and preservation mission. These profiles are neither comprehensive nor inclusive of all who carry out worthwhile and important functions, but represent the collective contributions of the many unsung but essential support staff. Profiled are contracting officers, a computer programmer, the International Affairs Office, a federal attorney, and volunteers who donate their free time to improving national parks through inventory and monitoring data collection and building public awareness about resource stewardship, among others. Many of the activities needed to ensure that park resources thrive can only be accomplished with the help of this focused and knowledgeable staff who operates behind the scenes.

Leading efforts to increase NPS natural resource protection capabilities since 1997



NATIONAL PARKS ARE THE victims of increasingly sophisticated poachers who take everything from rare reptiles and cacti in the Southwest to medicinal plants in the Appalachian Mountains. Park law enforcement is also responding to violent crimes like the notorious murders at Yosemite,

Shenandoah, and other national parks, which can undermine visitor perceptions of safety and have lasting Service-wide effects on visitor experiences. Protecting park resources and ensuring an enjoyable visitor experience are central to the mission of the National Park Service. For this reason, the NPS Law Enforcement Program is evolving to mitigate these risks. Ken Johnson, a 30-year NPS veteran who spent 10 years as a special agent at Shenandoah National Park (Virginia), is one of the people helping to transform conservation law enforcement to meet the needs of national parks in the 21st century.

In 1997, law enforcement operations at Shenandoah got a wake-up call. Resource Management Specialist Tom Blount bravely appeared at a protection division staff meeting and asked tough questions: Why was law enforcement largely irrelevant to his priorities in natural resource protection? For instance, why were the park's rangers spending a large part of their time pursuing deer poachers when the park had an overabundance of deer? How are the rangers contributing to the park's other priorities?

"After our initial consternation, we realized the resource staff had a point," says Ginny Rousseau, former chief ranger at Shenandoah. "In spite of the best efforts of our talented rangers, park resources were in decline. We needed to improve our mission effectiveness."

"Park law enforcement had evolved largely reactive capacities to effectively respond to visitor needs," notes Ken Johnson. "Until recently, resources in peril could not dial 911. Now, maturing park science programs are 'dialing 911' for the resources. We must meet those mission requirements as well. These emerging needs may be different from those of visitors and will likely require conservation law enforcement to develop new protective capacities."

"Protection efforts must also look beyond individual park boundaries to address growing ecosystem risks," continues Clay Jordan, former deputy chief ranger at Shenandoah. "Park enforcement and compliance programs need to set priorities or performance measures based on resource and visitor values at risk."

Recognizing that park law enforcement was facing new challenges and needed to develop new strategies to be effective, Ken Johnson went on a search for answers. He researched key NPS reports, such as the "Vail Agenda" and five recent evaluations of NPS protection capacity. The need for a law enforcement capacity, carefully prioritized and linked to science and the agency's performance measures, emerged as a consistent theme. These same issues emerged for all levels of park law enforcement.

Ken Johnson ... is one of the people helping to transform conservation law enforcement to meet the needs of national parks in the 21st century.

With these findings in hand, the law enforcement staff at Shenandoah sought financial support from the Natural Resource Protection Fund, part of the Natural Resource Challenge. This funding paid for the design and creation of the three-year Appalachian Chain Demonstration Project to experiment with ecosystem-level interdiction that combined science, enforcement, education, and regulation. Enhancing regional protection for ginseng (*Panax quinquefolius* L.), a plant valued for the medicinal qualities of its root, and three other plants sought by poachers was the project's focus. Demonstration project partners included not only Shenandoah National Park but also Blue Ridge Parkway, Great Smoky Mountains National Park, six state and federal agencies, and researchers at three universities.

As the project got started, some of the initial challenges were surprising. For example, reliable data for the four plant species were scarce, despite long histories of commercial exploitation. In fact, two parks had no population data, and only fragmentary case incident information supported beliefs about the exploitative risk to the plants.

To better focus resources and understand the extent of the risk, the project under Johnson's leadership employed science tools to gather population data and engaged resource economists to research market factors driving poaching. In the law enforcement arena, the project used covert operations to determine the level of resource risk, developed models to predict the behavior of violators and target patrols, and improved forensics to support enforcement and deter violators. Another important component was the use of information tools to link rangers for improved collection, analysis, and sharing of information. The project also sought ecosystem-level improvements in regulations.

The benefits of the demonstration project were substantial. The covert work, led by Special Agent Skip Wissinger, revealed a risk of unimagined proportion and resulted in 694 charges, including 300 felonies, brought against 103 defendants. Because of this project, one of the species at risk, galax (*Galax urceolata*), will be protected under

(Opposite page) Park staff at Shenandoah National Park marks ginseng roots with benign material that contains magnetic-coded marking chips and color-coded fluorescent dye, allowing law enforcement officers to apprehend diggers with roots illegally taken from the national park. Ginseng, which is valued for the medicinal qualities of its root, is federally protected as a species of special concern, but can be harvested legally in some national parks with proper permission. Prime dried wild roots legally harvested sell for \$350 to \$400 per pound. Plant marking was one of the natural resource protection components of the Appalachian Chain Demonstration Project designed by Ken Johnson.

the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). Additionally, monitoring plots have been established and forensics and marking techniques have improved.

“We accomplished much, but learned even more,” says Ginny Rousseau. “We learned to work effectively across departments and developed new skills. For example, covert officers were able to guide the plant-marking teams to areas mere hours in advance of the poachers! And the National Park Service’s only intelligence analyst, Joan Yorkey, tracked the flow of park resources to international destinations.”

For his design and leadership of the Appalachian Chain Demonstration Project, Ken Johnson was recognized with an award issued jointly by the deputy associate director for Natural Resource Stewardship and Science and the Law Enforcement Program administrator. Johnson, now retired from the Park Service, continues to advance this work as the director of the Institute for Conservation Law Enforcement, a partnership among three Cooperative Ecosystem Studies Unit universities. Clay Jordan, Ed Clark, Beth Waldow, Neil Labrie, and many others who worked on the project continue the good work from within the National Park Service. ■

Derrick Dardano, software engineer

Improving scientific research permitting in the national parks since 2001



SCIENTISTS APPLYING TO CONDUCT

research in the National Park System and park staff processing research applications may not know Derrick Dardano, but they rely on his work to make the application process go smoothly. A software engineer and research associate with Colorado State University, Derrick is responsible for the inner workings

of the Research Permit and Reporting System (RPRS), an online data management system that facilitates the creation of natural resource and social science research and collecting permits, and documents this research in the National Park System. For the past three years Derrick has been supporting the National Park Service as the sole RPRS programmer, a job he finds both challenging and satisfying. “Sometimes the job seems daunting because I’m doing so many more things than just programming. But I get to spend a fair amount of time interacting with park staff to get feedback on how the system is working for them. I try to make their lives easier. It’s rewarding work.”

Derrick is responsible for the inner workings of the Research Permit and Reporting System.

Research in parks fulfills the mandate of the National Park Service by increasing knowledge of park resources, enlightening today’s visitors and managers, and contributing to the health of resources for the enjoyment of future generations. The idea behind the RPRS is to standardize how electronic applications for research and collecting permits are received and processed in the National Park System. Before it was launched in 2001, researchers often encountered a variety of requirements and procedures when applying to parks for permission to conduct their studies, which was a common source of confusion and frustration. The Research Permit and Reporting System allows parks to easily solicit valuable research efforts and affords researchers the convenience of a consistent, Service-wide permitting process that is available over the Internet. Standardization has also

sped up the process. “It’s been very satisfying to see that the end results of our efforts are useful and make the process easier,” Derrick says.

Derrick’s accomplishments include creating and maintaining the present version of the permitting system, customizing it to meet park needs, and integrating a new pilot program called E-Authentication (see article, page 76) that will eventually simplify and speed up the process even more. He continually improves the system based on input from parks and researchers and from his firsthand knowledge of park needs and work procedures. Derrick likes this aspect of his job particularly and says, “What’s cool is that I get to come up with ideas for improvements and develop my own specifications that address a need. After getting feedback from users, the next thing you know I’m building something I suggested.” For example, park staff can now download park-specific data from the RPRS in MS Access format, giving them tremendous freedom to design their own data reports. Derrick facilitates documentation of research by contacting researchers through an automated e-mailing procedure at the start of the annual call for Investigator Annual Reports, and by providing a means to track the submission of research reports. Thanks to a modification he made, the system now addresses the needs of the NPS curatorial community by reinforcing the communication of NPS policy on resource collecting and curatorial standards; it also facilitates communication among museums and other repositories and park curators. Derrick recognizes that while he plays a central role in how the RPRS operates, his NPS coworkers coordinate other important aspects of the system, contributing outstanding leadership and support, and he is proud to work among them.

An online system that facilitates transactions between the public and government requires constant maintenance. Derrick’s expertise and hard work keep the Research Permit and Reporting System current with Internet technology developments, policy changes, expanding user needs, and increased security requirements. His skill and innovation as a software engineer are helping to make national parks more accessible to researchers who explore scientific frontiers and address park management questions. ■

Rob Eaton, attorney-advisor, Office of the Field Solicitor, Santa Fe, New Mexico

Providing expert legal advice in support of NPS natural resource stewardship since 1989

THE NATIONAL PARK SERVICE has been conserving parks for the enjoyment of future generations since 1916, when the NPS Organic Act announced the bureau's purpose. However, as our nation's population has grown and the National Park System has expanded, adding lands to the system that were once owned privately or by states, natural resource management has become more complex. An example is the Geologic Resources Division's (GRD) work related to helping park staff manage nonfederal oil and gas operations in National Park System units. Fortunately, GRD staff and park managers in the Southwest can turn to Rob Eaton for guidance when things get complicated. Eaton, an attorney-advisor with the Department of the Interior Office of the Field Solicitor in Santa Fe, New Mexico, sees his primary role "as helping the National Park Service survey and stake out reasonable and legally defensible positions on contentious issues."

Although the issues the Park Service faces can be discordant, Rob thinks "resource-related work is fun," and a fine complement to the high volume of often tedious general law work that is part of his everyday endeavors: title options for federal lands acquisitions, reviewing and approving contracts and agreements, and resolving procurement disputes. Specific resource-related projects that Rob is working on are assisting the National Park Service in using its legal authority to manage oil and gas development in national parks in Texas, helping stakeholders with varying viewpoints see eye to eye on the river management plan in Grand Canyon National Park, and guiding federal entities toward a legally appropriate attitude and action (e.g., not using motor vehicles in designated wilderness) in parks along the Mexican border.

Rob views himself as a teacher who educates park personnel about their legal authority.

Rob says he came to law "late in life," but one would never know it from his command of this critically important component of natural resource management. His motivation comes from a desire to see specific projects, some of which he has worked on for years, to their conclusion. Like most lawyers, he also enjoys a good argument, for example struggling with the tension between federal and state



Rob Eaton (right) with former Secretary of the Interior Stewart Udall at the June workshop on managing nonfederal oil and gas operations in parks.

authority, what he calls "the good stuff for lawyers." In addition, he says, "I like to do my job well." GRD staff appreciates his honest work ethic and explains, "Rob's expertise and helpful attitude make him one of the many people and partners of the division that help it do its job more effectively."

In 2004, as in years past, Rob provided expert advice and assistance to the Geologic Resources Division, the Intermountain Region, and parks. He also was an invaluable participant in answering numerous questions during a three-day workshop on managing nonfederal oil and gas operations in national parks (detailed in *36 Code of Federal Regulations Part 9, Subpart B*) that the Geologic Resources Division hosted in Santa Fe. In addition to being a lawyer, Rob views himself as a teacher who educates park personnel about their legal authority. As such, he gave a presentation for superintendents at the Natural Resources Law and Policy course held in late August, which underscored the importance of the National Park Service compiling a solid administrative record to prevail in the face of litigation. According to Carol McCoy of the Geologic Resources Division, "No matter how pressed Rob may be, he always finds a few minutes of his time to speak to staff and park resource managers to address their questions, and unfailingly returns their phone calls. Rob is a delight to work with, along with being an awesome, helpful lawyer." ■

Citizen scientists recognized for decades of quiet volunteer service at Cuyahoga Valley

Informing natural resource stewardship at the park since 1974

MORE THAN 30 YEARS AGO, a small group of avid birders in northeastern Ohio decided that it would be fun to document the birds they saw in their favorite birding spot throughout the year. Each week they tallied the numbers of birds of each species observed. Weeks turned into months, months into years, and the bird surveys continued, with observations faithfully recorded.

Soon, their chosen survey location along the Cuyahoga River was included as part of the Cuyahoga Valley National Recreation Area (designated National Park in 2000), established in 1974 as one of the country's first urban national parks, to preserve the scenic, cultural, and natural heritage of the river valley between the cities of Cleveland

These skilled volunteers have provided an invaluable service in the form of long-term data on changes in the bird community of the valley since creation of the national park.

and Akron, Ohio. Through the years, these and other volunteers continued the weekly surveys in various locations within the park, faithfully submitting their data to park staff. In addition, members of three regional National Audubon Society chapters initiated a number of other parkwide survey efforts, and the current bird list for the park was created entirely by these volunteer experts. Most recently, 10 of these citizen scientists were enlisted to gather bird abundance data in surveys across the 33,000-acre (13,365-ha) park as part of a monitoring project supported by the NPS Park Flight Migratory Bird Program. Monitoring birds is essential for assessing population status and trends and for evaluating the success of conservation actions.

The combined efforts of these skilled volunteers have provided an invaluable service in the form of long-term data on changes in the bird community of the valley since creation of the national park. Yet, because of turnover in park staff over the years, many of the efforts of the three dozen most active and expert birder volunteers largely went unrecognized by the park, and most of their efforts over three decades were not included in reports of park volunteer-hours. If they had been, the time tallied by just a single individual doing the weekly surveys would have totaled nearly 8,000 hours, equaling more than \$137,000 in services according to today's volunteer time value estimation. Finally, in October 2004, during an official dedication of the park as an Important Bird Area by Audubon Ohio, these citizen scientists were formally recognized by the National Park Service for their important contribution to the conservation of birds in Cuyahoga Valley National Park. Fran Mainella, Director of the National Park Service, participated in the dedication ceremony and presented certificates of appreciation to these bird monitoring volunteers. ■



Director Mainella (left) presents certificates of appreciation to citizen scientists at Cuyahoga Valley National Park for three decades of regularly reporting bird observations and abundance data.

NPSFACT

Volunteers to the National Park Service **donated 955,787 hours, valued at \$16,429,979**, in FY 2004 related to natural resource management projects that ranged from ecological restoration and data gathering to resource monitoring and wildlife management. Natural resource management is the second largest category, behind interpretation, for NPS volunteer-hours.

Bruce Sefton commended for support of resource stewardship

Supporting natural resource stewardship through maintenance at Yellowstone since 1989

THROUGHOUT HIS 15 YEARS AS YELLOWSTONE National Park's Lake District maintenance supervisor, Bruce Sefton has demonstrated a remarkable commitment to protecting resources, supporting resource stewardship programs, and working across divisional lines to ensure that the park's resource stewardship mission is achieved.

Specifically, Bruce and his maintenance team designed, constructed, and installed 60 floating dock units that prevent pollution of Yellowstone Lake. The old docks, dating from the 1960s, were made of encapsulated Styrofoam that broke down constantly, creating millions of minute waste particles that were deposited in a bathtub-ring fashion around the lakeshore. Rather than despair, Bruce saw the dilapidated state of the docks as a special opportunity. Unable to find an affordable new dock that met the park's needs, he designed a dock that replaced the Styrofoam flotation with a polyurethane-encapsulated foam chamber, eliminating the source of pollution. Bruce's crew created the docks in their "spare time" over the course of five years. By investing the "sweat equity" of his staff, Bruce was able to save \$3,000 per dock over commercially available units, realizing a total savings to the park of more than \$180,000. This nonpolluting, inexpensive dock design could be incorporated in other national park areas with similar issues.

Bruce has also been the champion of Yellowstone's greening initiative in the Lake District, devoting staff time and energy to replacing long-standing maintenance practices with new, more

sustainable practices. Perhaps most importantly, he and his staff have ensured that the fisheries and aquatic resources biologists, wildland fire staff, and partner researchers based at the Lake District have been provided with the housing, facilities, and logistical support they need to accomplish the park's resource stewardship objectives.

Bruce has demonstrated a remarkable commitment to protecting resources [and] supporting resource stewardship programs.

Bruce has been a leader in interdivisional cooperation, at times sacrificing other projects in order to support resource stewardship staff. "Yellowstone's Lake District has the best interdivisional relations of any place I've ever been," he says. "We try to take care of our customers, and I think over time, the resource managers have gained an appreciation for Maintenance—they're at our doorstep helping us too, when we're in trouble. Because we are remote and have so few people, we have to help each other or we would never make it through. Everything is a team effort."

For his resource-friendly dock design as well as his exemplary greening initiatives and extensive assistance to park biologists, independent researchers, and firefighters, Bruce received the NPS Director's Award for Excellence in Natural Resource Stewardship through Maintenance for 2003. ■



Bruce Sefton and one of the environmentally friendly docks he designed for Bridge Bay Marina, Yellowstone Lake

Purchasing goods and services critical to NPS natural resource stewardship and science

ACHIEVING ALMOST ANY GOAL set by the National Park Service requires spending money, but actually purchasing something with federal funds requires an expert who knows how to maneuver through the extensive and complicated procurement process. The people in the National Park Service who can take a park unit's wish list and turn it into new equipment, a report on a park's bird inventory or any number of research questions, or the construction of new buildings are the contracting specialists. These wizards know which of the myriad regulations apply, for example, to the purchase of scientific expertise through a Cooperative Ecosystem Studies Unit (CESU), in the development of an Inventory and Monitoring Program database, or for the rehabilitation of an old building. They can look at a park's statement of needed work; refine it until it is perfectly clear and expressed in contractual terms; select the appropriate contract, task agreement, cooperative agreement, or other "instrument"; and then make the transaction according to regulatory requirements. At the end of the process, they have purchased goods and services critical to the National Park Service at the best price and in a timely manner.

What makes an excellent contracting specialist? The people who work closely with two of them are especially appreciative of the in-depth knowledge these contract officers bring to the labyrinth of red tape, and of their skill at knowing when and how to negotiate—hard but fairly. They evaluate vendors, budgets, and services, and they save the National Park Service a lot of money. They also work with government lawyers to make sure that problems of liability, intellectual property, and other issues will not arise later.



Tom McConnell

Diane Pavek, research coordinator for the National Capital Region, says that Tom McConnell, supervisory contract specialist for that region, saves her weeks of frustration wading through paperwork when he works with her to obligate Natural Resource Challenge funds. He cares about the parks' projects and in 2003 presented a training workshop for natural resource

managers to help them both make their requests most effectively and acquire the research and technical assistance they need. Tom has been with the National Park Service for 23 years and is still cheerful and ever willing to help. He enjoys working with his NPS colleagues and says, "It's enjoyable to work with the natural resource people and others in the region. What I like about the ... Park Service is that it's small. In other government agencies, people in my job don't get to see what they purchase because the projects are so big. If I buy the design for a building, or a scientific report, I like the fact that when it's done, I can see it."

Kathleen Batke has been a contract specialist for the Southeast Region for the past five years. She was a lifesaver, according to Larry

West, Southeast Region branch chief for inventory and monitoring (I&M), when he first had to figure out how to write agreements for I&M projects. Kathleen stepped forward and put her previous 15 years of experience working with NASA scientists to work in developing task agreements for scientists providing services through four

At the end of the process, they have purchased goods and services critical to [the natural resource stewardship and science programs of] the National Park Service at the best price and in a timely manner.

CESUs, which were created to encourage and facilitate cooperation among partners from many different federal and nonfederal organizations. "The difference between working at NASA and working here," she says wryly, "is that the Park Service is much more down to Earth!" Kathleen has developed standard formats for various agree-



Kathleen Batke

ments so that the terms and conditions are in compliance with the procurement regulations and the agreements can be completed efficiently to meet the requestors' needs.

She works on all kinds of projects, including contracting for a new science center at Great Smoky Mountains National Park.

Larry West says, "She's hardworking and fast, and she saved us from making a lot of mistakes when we first got started. Somehow she keeps track of everything, everyone gets paid, and she's a lot of fun while she's doing it all."

In addition to being involved in a whirlwind of regional projects, Tom and Kathleen have been instrumental in managing the contracts and cooperative agreements that form the basis of many natural and social science activities Service-wide. Tom has supported projects and conferences in five NPS regions and at the national level through the Chesapeake Watershed CESU, the Watershed Condition Assessment, the Socioeconomic Atlas, and this year's chestnut restoration conference (see article, page 59). Kathleen, as the contracting officer for NPS participation in the aforementioned CESU agreements, has facilitated Service-wide activities of the Visiting Chief Social Scientist through the Gulf Coast CESU cooperative agreement with Texas A&M University and the Biosphere Reserve Assessment through the Southern Appalachian CESU agreement with the University of Tennessee, Knoxville. In both of these cases she works with technical representatives outside her region and focuses on program goals that transcend her region.

Both Kathleen and Tom are unsung heroes of the National Park Service's natural resource stewardship and science programs. ■

Supporting NPS migratory bird conservation through exchanges in technical expertise since 2001

HOW DOES A TEAM OF DEDICATED EMPLOYEES working quietly behind the scenes in the Office of International Affairs (OIA) in Washington, D.C., contribute to natural resource conservation in the parks? Just as migratory birds create connections between our parks and areas to the south, Jonathan Putnam, David Krewson, and Linda Bennett of the OIA facilitate the human connections that help conserve these shared species.

Through the International Volunteers in Parks program, this team of international conservation experts has made it possible for the NPS Park Flight Migratory Bird Program to bring talented biologists from Latin America to assist with bird conservation and education projects in the national parks. The office handles the visa application process for all international volunteers and processes training plans for the candidates. These internships provide opportunities for the exchange of knowledge and experience—scientific, cultural, and language—helping the National Park Service meet its mission and allowing the interns to improve their resource management capacity in their home countries.

The Park Flight Program has benefited tremendously from the involvement of international volunteers, who have gathered valuable data for park managers and reached out to new audiences. During the 2004 field season, for instance, Pablo Petracci from Argentina assisted with the first-ever land-bird inventory in Gates of the Arctic National Park and Preserve (Alaska), while Mariamar Gutiérrez from Nicaragua checked nests for cowbird parasitism in Cuyahoga Valley National Park (Ohio). Roberto Quintero Domínguez from Mexico led members of the local Latino community on bird field trips in North Cascades National Park (Washington), and Ruby Zambrano



Jonathan Putnam, Linda Bennett, and David Krewson of the NPS Office of International Affairs

ing and education efforts in national parks, contributing more than 7,400 hours valued at more than \$127,000.

The Office of International Affairs also guides the international component of the Park Flight Program, which has projects in Latin America and the Caribbean, and coordinates technical assistance by NPS employees to the Park Flight projects in these broad regions. These exchanges help to make the projects viable and allow technical experts to experience firsthand the issues faced by shared migratory bird species at both ends of the migration route. Considering that many bird species spend part of their lives beyond the borders of this country, it is only logical that those who protect their habitats here are interested in working with those who manage them elsewhere.

Park Flight is only one of many exchange programs conducted by the OIA that bring conservation students and leaders to the United States for training and to share their expertise. Similarly, when outside funding is available, NPS personnel participate in conservation and management projects abroad. The OIA also facilitates “sister park” relationships among national park sites in this country and protected areas overseas with similar resources or management concerns. (Further information about the OIA is available at <http://www.nps.gov/oia>.)

Though unable to experience the dawn chorus or the children’s look of wonder, the staff of the Office of International Affairs can take pride in contributing from afar to the conservation of migratory birds in parks across the National Park System and the hemisphere. ■

“Creating ... a multinational consciousness in our young people is vital to the conservation of migratory birds.”

from Panama gave bird-banding demonstrations to school students (grades 5–12) at Bandelier National Monument (New Mexico). The impact of these international volunteers on park resources, visitors, and staff is significant. Stephen Fettig, wildlife biologist at Bandelier, explains that “the Park Flight Program brings children to a remote but magnificent part of the monument and gives them a chance to see migratory birds up close. The experience deeply touches the students with feelings of awe and respect in a way that is striking to parents and teachers alike. The students are also interested in Ruby’s life in Panama and what birds New Mexico shares with Panama. Creating such a multinational consciousness in our young people is vital to the conservation of migratory birds.” Since 2001, 19 Latin American biologists from six countries have assisted with Park Flight bird monitor-